

CLAIMS

What is claimed is:

1. A method comprising:

forming a slot into a substrate, the slot extending along a long axis and being defined, at least in part, by a pair of sidewalls which extend generally parallel to the long axis; and,

forming at least one bowl-shape into the substrate so that the long axis passes therethrough, the bowl shape being connected to the pair of sidewalls of the slot and defining, at least in part, a terminal region of the slot.
2. The method of claim 1, wherein said act of forming at least one bowl shape comprises forming at least one bowl shape into a first surface of the substrate, and wherein the at least one bowl shape has a width at the first surface measured generally orthogonal to the long axis that is greater than a width at the first surface measured generally orthogonal to the long axis between the pair of sidewalls.
3. The method of claim 1, wherein said act of forming a slot comprises one or more of: sand drilling, laser machining, and etching.
4. The method of claim 1, wherein said act of forming at least one bowl-shape comprises at least one of laser machining and mechanically removing

substrate material.

5. The method of claim 1, wherein said acts of forming occur concurrently.

6. The method of claim 1, wherein said act of forming a slot comprises forming the slot so that the two sidewalls are generally orthogonal to the first surface.

7. The method of claim 1, wherein said act of forming a slot comprises forming the slot so that the two sidewalls blend into the first surface.

8. The method of claim 1, wherein said act of forming at least one bowl shape occurs prior to said act of forming a slot.

9. A print cartridge comprising, at least in part, a substrate formed in accordance with the method of claim 1.

10. A method comprising:

forming a fluid-feed slot between a first substrate surface and a second generally opposing substrate surface, the fluid-feed slot extending along a long axis and having a central region and at least one terminal region arranged along the long axis wherein the terminal region is wider at the first surface than the central region as measured generally orthogonally to the long axis; and,

blending the slot at the first surface, at least in part, to decrease stress concentrations on substrate material proximate the first surface.

11. The method of claim 10, wherein said act of forming comprises forming two terminal regions with the central region interposed therebetween.

12. The method of claim 10, wherein said act of forming comprises forming at least one terminal region which is generally elliptical when viewed from above the first surface.

13. A print cartridge comprising, at least in part, a substrate formed in accordance with the method of claim 10.

14. A method comprising:

forming a fluid-feed slot by removing substrate material between a first substrate surface and a second generally opposing substrate surface, the fluid-feed slot having a cross-section at the first surface comprising a narrower central region positioned between two wider terminal regions; and,

rounding the slot at the first surface by removing additional substrate material, at least in part, to decrease stress concentrations on substrate material proximate the first surface.

15. The method of claim 14, wherein said act of rounding comprises contacting substrate material with a drill bit.

16. A method comprising:

forming a slot into a substrate between a first substrate surface and a second generally opposing substrate surface; and,
rounding a region where the slot intersects the first surface.

17. The method of claim 16, wherein said act of forming occurs prior to said act of rounding.

18. The method of claim 16, wherein said act of forming a slot comprises forming a slot extending along a long axis and having a central region and at least one terminal region arranged along the long axis.

19. The method of claim 16, wherein said act of forming a slot comprises forming a slot extending along a long axis and having a central region interposed between two bowl-shaped terminal regions arranged generally along the long axis wherein each of the terminal regions has a width at the first surface taken generally orthogonal to the long axis that is greater than a width of the central region at the first surface taken generally orthogonal to the long axis.

20. A method comprising:

forming a central region of a slot into a semiconductor substrate the central region extending between a first substrate surface and a generally opposing second substrate surface; and,

forming two terminal regions of the slot into the first surface generally contiguous with and interposed by the central region, each of the two terminal regions having a width at the first surface taken generally orthogonal to a long axis of the slot that is greater than a width of the central region at the first surface taken generally orthogonal to the long axis of the slot.

21. The method of claim 20, wherein said act of forming two terminal regions comprises forming two terminal regions which do not extend to the second surface of the substrate.

22. The method of claim 20, wherein said act of forming two terminal regions comprises forming two terminal regions which extend through less than a majority of a thickness of the substrate as defined between the first and second surfaces.

23. The method of claim 20, wherein said act of forming two terminal regions comprises forming two terminal regions which are generally circular when viewed from above the first surface.

24. The method of claim 20, wherein said act of forming the central region comprises rounding the central region into the first surface and wherein said act of forming two terminal regions comprises rounding the two terminal regions into the first surface.

25. The method of claim 20 further comprising forming two additional terminal regions into the second surface which are contiguous with and interposed by the central region.